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ABSTRACT

A December 1983 survey queried the chief state school officers of the 50 states on the extent to which distance learning techniques are used in public education in their states. Respondents were asked to focus on interactive forms of distance learning, such as audio and video teleconferencing. A total of 28 states (56%) responded, with the following 14 states indicating that there were no current projects involving distance learning in their states and no plans for future implementation: Arkansas, California, Delaware, Florida, Kentucky, Idaho, Maine, Michigan, Mississippi, Missouri, New Hampshire, New Jersey, North Dakota, and Tennessee. A wide range of current activities and future plans in distance learning technologies were indicated by the remaining 14 states of Alabama, Alaska, Illinois, Maine, Minnesota, Nevada, New Mexico, New York, North Carolina, Oregon, Pennsylvania, South Carolina, Texas, and Wyoming. Individual responses of the state departments of education are presented for each of 10 questions covering resources, financing formulas, numbers of projects or sites, training required of teachers, subject areas involved (basic skills, languages, science) and types of courses (full course, motivational, supplemental) being delivered by distance technologies, course development, state accreditation, administrative uses of telecommunications, and state-level planning for the future. The survey instrument and a list of respondents are appended. (LMM)

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SURVEY ON USES OF DISTANCE LEARNING IN THE U.S.

Conducted by the Regional Exchange

SOUTHWEST
EDUCATIONAL DEVELOPMENT LABORATORY

IR011206

-SEDL-RPSP-SEDL-RX-SEDL-

Survey on Uses of Distance Learning in the U.S.

by

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March 1984

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Introduction

Educational planners and policymakers have for some time discussed alternative means of education as a vehicle for correcting some of the ills of our nation's schools. Faced with budget cutbacks, strained resources, increasing curriculum demands, and severe teacher shortages, educational decisionmakers at the national, state, and local levels are paying increasing attention to the possibilities and problems of using new technologies to deliver instruction over distance.

Extensive use of distance technology for administrative and instructional purposes has of course until recently been centered in business and industry. But increasingly the media report on individual school districts which are innovating by providing teacher inservice in physics over the telephone, multiplying mathematics instruction through an electronic blackboard, transmitting high school credit courses through instructional "talkback" television, and conducting computer literacy seminars by means of computer conferencing. One state, Alaska, has become known for its use of technology to overcome the problems of distance and staffing.

The survey reported in this paper sought to discover the extent to which distance learning, as defined by the author, is being used in public education, K-12, in the U.S.

Procedure

In December 1983 the Regional Exchange Project of the Southwest Educational Development Laboratory conducted a "Survey on Uses of Distance Learning in the U.S." The Chief State School Officers of the fifty states were sent a letter requesting their assistance in filling out a brief survey form on the extent to which "distance learning" techniques are used in public education in their states.

For the purposes of this state-by-state mail survey, distance learning was defined to include "open" and "independent" learning, in which the learner is distant from the instructor or the site of the materials. Although correspondence and instructional TV are included in such a definition, the respondents were asked to focus on interactive forms of distance learning such as audio and video teleconferencing. (Appendix A contains the instrument.)

A total of twenty-eight states (56%) completed the survey and returned it to SEDL. Of these states fourteen indicated that there were no projects involving distance learning in their states at the present time and no plans for implementation in the future. The responses of the remaining fourteen states indicate a wide range of present activities and future plans in distance learning technologies.

Reporting that there is no activity in distance learning currently were Arkansas, California, Delaware, Florida, Kentucky, Idaho, Maine, Michigan, Mississippi, Missouri, New Hampshire, New Jersey, North Dakota, and Tennessee. Reporting that distance learning has been and/or is a teaching/learning mode in the state were Alabama, Alaska, Illinois, Maine, Minnesota, Nevada, New Mexico, New York, North Carolina, Oregon, Pennsylvania, South Carolina, Texas, and Wyoming. (Appendix B contains a list of the respondents.)

Report

The following presents the individual responses of the state departments of education to each of 10 questions comprehending resources, financing formulas, numbers of projects or sites, training required of teachers, types of courses being delivered by distance technologies, course development, state accreditation, and state-level of planning.

Question 1: Does your State Department of Education provide resources or assistance to distance learning projects? If so, in what ways?

Alabama: Yes. The SDE, Division of Instructional Services, supported Dr. Marie Blackwell's Satellite Conferencing Project at the University of Alabama in Birmingham back in the late 70's. A pilot project was operated with NASA dishes on an experimental basis.

Alaska: Yes. 7 day per week video programming distributed by satellite statewide. Audio conferencing service available to educators and students statewide. Computers are used frequently for instruction in the state, but primarily on a stand-alone basis rather than as part of a distance education effort.

Illinois: No.

Massachusetts: Yes. We conduct statewide ITV broadcast and non-broadcast service in addition to the acquisition and distribution of limited amounts of computer software.

Minnesota: Yes. Funded first low power television project through ESEA Title IV-C and a state funded program called Council on Quality Education (CQE) over a 3 year period.

Nevada: The department has provided an impetus to an effort to further the provision of distance learning through the university system.

New Mexico: The State Department of Education is involved in organization and planning committees originating in the state by offering their expertise, assistance, and available resources to enhance the growth of distance learning in the state.

New York: The New York State Department of Education provides resources and assistance to the following telecommunications programs which may be construed as "distance learning activities." First, the Office of Elementary, Secondary, and Continuing Education provides reimbursement through its Boards of Cooperative Educational Services (BOCES) for the following terminal-accessed interactive computer software programs: Computer Curriculum Corporation (CCC) and Guidance Information Sciences (GIS). Data results from the Department's 1983 "Survey of Computer Usage in New York State Schools, Public and Nonpublic, K-12" indicates that CCC is provided to 156 schools for student use only, 103 schools for teacher use only, and 103 schools for student and teacher use, and the GIS is offered to 406 schools for student use only, 301 schools for teacher use only, and 285 schools for student and teacher use. The Office of Cultural Education provides funding to nine (9) Public Broadcasting Television Stations and 12 Public Broadcasting FM Stations for the delivery and interactive communications of instructional television and radio programming. These programs are broadcast and received by most of New York State's public and nonpublic schools. The Department has provided varying fiscal and technical assistance to the 116 low-power television broadcast stations, most of which are operated within our BOCES. Also, staff engineers from the Center for Learning Technologies participated in the design and implementation of an "arc translator system" in the "Southern Tier Region" of New York State, which provided interactive "line-of-sight" communications. Finally, the Department's Center for Learning Technologies produces approximately ten (10)

teleconferences every year which provides for telephone/television interactive communications between panelists and students in the field.

North Carolina: No financial assistance but consultant help in the areas of audio, video, and slow-scan teleconferencing.

Oregon: Yes. The department provides instructional television broadcasts to elementary/secondary classrooms and adult education courses via the OPB system. Technical assistance to use these programs is available from elementary schools through the community college levels.

Pennsylvania: State legislators provide PDE with $300,000 per year to assist the 7 instructional television stations in Pennsylvania. Staff also provides technical assistance to schools on how to use video and teleconferences.

South Carolina: Yes. The Office of Instructional Technology regularly coordinates teleconferences (video and audio talkback) by the S.C. ETV Network for the Department. During 1982-83 teleconferences were provided for the following offices:

Office of Adult Education (3)
Office of Food Services (1)
Office of General Education (4)

Texas: Yes.

a. TEA has provided funds and technical assistance to schools and ESC's for telecommunication-based projects which were to deliver instruction.

b. In the 1970's a project called the Telecomputer Grid was provided funds and some planning assistance via various TEA staff; the main funds were Federal/Vocational Ed. funds. In the mid 70's TEA in cooperation with several other institutions including Region IV ESC, A & M Extension and U. T. medical did extensive planning and applied for federal funds to establish a satellite-based interactive telecommunications system. Currently some State funds partially support the interactive telecommunications project, InterAct, at Region IV. A variety of smaller activities, studies and some funds over the last two decades have contributed to distance learning demonstrations and limited use. As far back as 1965 the electronic blackboard project was partially supported by TEA. Even before that there was the old School of the Air on radio.

Wyoming: Not specifically. The department stands ready to provide encouragement and assistance in developing educational programming for such. I would also be willing to help locate those who could assist in developing the required educational technology.

Question 2: Does the state through its school financing formula provide money for distance education projects? If so, how much?

Alabama: Federal funds piped to our 129 LEAs through our SDE is used to purchase VTR, TV sets, microcomputers and satellite "receive" dishes only in few locations. Funds have been spent at the discretion of LEA superintendents.

Alaska: No. Funding for this effort is separate from formula funding, but is in the following approximate amounts.

K-12 -- 3.8 million/annually
Higher Educaiton -- 2.0 million/annually

Illinois: No.

Massachusetts: No.

Minnesota: No.

Nevada: No.

New Mexico: No funds are directly allocated for distance education projects at present in New Mexico.

New York: "Distance Learning" activities, such as the provision of CCC, GIS, and the operation of the low-powered television stations, all of which occur in the context of the Elementary and Secondary Education sector, are partially reimbursed through the mechanism of a BOCES "Cooperative Service" application. For information regarding BOCES formulas and total funds expended on these activities, contact Mr. Lee Pierce, Supervisor, Bureau of School District Organization, at (518) 474-3936. Funding for public televison and radio is predicated on a formula and amounts to approximately 15 million dollars each year. Production costs of teleconferences run between $10,000 - $12,000 per teleconference.

North Carolina: No direct allocation for this.

Oregon: In-school broadcasts and rights to use video tapes of specific programs is budgeted for elementary/secondary programs. The Office of Community Services does provide reimbursement for FTE generated by/through distance education projects. They are not categorized as "distinct" courses, but are listed as the "traditional" courses are listed.

Pennsylvania: LEAs may choose to use state funds for these activities if they desire to do so.

South Carolina: No.

Texas: There is no designated forumla financing specifically for 2-way telecommunications-based instruction. However, the state ITV services funds ($1,271,519 per annum) are used for television services. There is no restriction, except tradition, on its use for two-way interactive television services.

Wyoming: No.

Question 3: How many school districts have current distance learning projects using telephone, video or computer telecommunications? The names of the districts are:

Alabama: Although specific pieces of communication hardware have been purchased in the last decade by our LEAs (300 VTRs; over 1,000 microcomputers, and some "receive" dishes only) a correlated system of teleconferencing is yet to be born in Alabama schools.

Alaska: Virtually all 53 school districts are involved with video and audio. Virtually all school districts use computers, but basically in a stand-alone mode (local mode).

Illinois: About 40 -- the vast majority of these are hooked to PLATO.

Massachusetts: Impossible to judge accurately.

Minnesota: Eagle Bend, Bertha-Hewitt and Clarissa, using LPTV, fully interactive. Braham and 9 other districts are installing a satellite dish and plan to use microwave and local cable to connect all 10 districts. Others are looking into it. South Washington County schools have a dish and are planning to connect their schools.

Nevada: The University of Nevada - Reno, extended programs, has offered on a limited basis teleconference courses designed to reach rural Nevada.

New Mexico: Distance learning projects in New Mexico are occurring primarily at the post-secondary level. The extent to which school districts participate is minimal but considerable attention is being generated as a means of providing attenative means of delivering instruction.

New York: Data results from our 1983 "Survey of Computer Usage" indicates that there are a total of 4,276 terminals linked via cable or telephone modem to a remote computer. 103,700 students, 3,549 teachers and 1,590 other staff use these terminals for "distance learning" purposes. These terminals are distributed throughout most of New York State's public and nonpublic K-12 schools. For information on specific schools, contact: Mr. Leonard Powell, Chief, Bureau of Educational Data Systems, at (518) 474-7082. Public television, radio programs, and our teleconferences are available to all schools who receive the broadcast. Mr. William Halligan, Assistant Director, Center for Learning Technologies, at (518) 474-5862, may be able to provide you with statistics regarding reception and audience.

North Carolina: Unknown. No record kept of school systems using audio, video and slowscan teleconferencing. A listing of the schools in the WCU-Micronet project is attached. We have no record of the schools using telecommunications for electronic mail and reference services.

Oregon: Approximately 80 to 90 percent of the elementary/secondary schools in the state have access to video broadcast signals. At the 13 community colleges there are 15 video projects, three are audio-telephone projects and two television-teleconferencing projects.

Pennsylvania: Over 200 have video in different forms, more than 450 have microcomputers, 1/3 have cable and all schools can use video broadcasting.

South Carolina: None to our knowledge using telephone or video. We are currently conducting a computer survey which will provide information on possible current distance learning projects involving computer telecommunications.

Texas: TEA does not specifically collect information from schools about so called distance learning. Districts that should be contacted are Richardson, Houston, Spring Branch, Mesquite, Pharr-San Juan-Alamo, Edinburg, McAllen, Laredo, Alice, Hurst-Euless-Bedford, Denison, and ESC Regions I, IV, XIX and XX. Although few of these operate two-way systems they are capable of doing so by use of telephone feedback in conjunction with their present TV broadcasts and cable systems. Each could fairly easily be offering "side-band" services for audio and perhaps computer data.

Wyoming: None with ongoing programs are known.

Question 4: What special training is required of teachers who teach via distance learning? Is teacher certification affected by distance learning?

Alabama: No special training at this point has been set; although the microcomputer unit, I understand, has something on this line in the planning stages.

N/A

Alaska: None required. However the department offers training in the use of video, audio, computers through workshops and courses.

No. However, a staff development effort via telecommunications is requested as part of next year's budget.

Illinois: 12 hours at PLATO SITE.

No.

Massachusetts: N/A

No.

Minnesota: None.

No, if I understand the question. Teachers currently teaching German, Spanish, Art and Algebra are all licensed in their fields.

Nevada: N/A

We anticipate more distance learning opportunities in the future so as to assist teachers in acquiring renewal credit.

New Mexico: Currently, the State does not require any special training of teachers who teach via distance learning.

No special teacher certification requirements have been adopted nor is it expected that new requirements will be imposed at this point as a result of distance learning.

New York: At present, training on the application and content of the CCC and GIS programs as well as the content of the "instructional television programming" is provided through a variety of channels such as the BOCES, the Public Broadcast Instructional Television Coordinators, and district inservice programs. However, these programs train teachers on the content and application of material and do not specifically address "distance learning." Since the concept and technology of providing "distance learning" is relatively recent and continually evolving, the educational sector is currently planning for training of this type with its implementation projected for the immediate future. There is no data to indicate whether teacher certification is or is not currently offered by "distance learning."

North Carolina: Competency based requirement only.

Not at this time.

Oregon: No specific training is required for elementary/secondary instructors teaching ITV programs. At the community college level, specific training for telephone instruction is provided by the colleges.

Pennsylvania: Each program has in-service components.
No.

South Carolina: There are no special training requirements from the State Department of Education for distance learning teachers.

There are no teacher certification requirements created by distance learning. Teacher certification is facilitated by our Office offering six certificate-renewal courses each semester, program components of which are broadcast via the S. C. ETV Network.

Texas: Currently there are no special state certification requirements for distance teaching practitioners. So called TV teachers are normally no differently certified than other "classroom" teachers. If distance learning becomes prevelant then no doubt some will recommend special requirements. As a practical matter distance teaching requires extensive modification of both teacher and student behavior. Teachers in particular usually become part of an instructional delivery team rather than the central manager, source of information, and seer. The role of the teacher in a team is extensively different and more specialized than is a classroom teacher.

Teacher certification is not yet affected by the use of distance learning techniques. As mentioned previously, certification requirements for special teachers would be one area affected. However, beyond that it is quite probable that there will be broad effects upon the whole certification program. The concept of certification as a screen, or quality requirement, for professionals might undergo modification if delivery of instruction via non-traditional methods became widespread. Roles of in-school (on campus and in-room) personnel might, over time, be modified. Aides or paraprofessionals might increase the scope of their roles. Administrative roles would also be affected as the delivery system changed from on-site and physical presence mode to remote delivery. Also the changes in socialization emphasis, required by extensive use of distance delivered instruction, will require definite changes in how on-campus personnel are used.

Distance learning will also add emphasis on extending the use of all AV including computer devices and media-based instruction. Combined with electronic (automated) teaching/record-keeping, etc., the system would make considerable new demands on teacher management skills, analytical behavior, instructional design skills, etc. In summary, instructional technological skills that are only peripherally required now will be essential professional knowledge in distance learning.

Other areas besides teacher changes and funding that need examination/planning will be

- class length standards (hours per ---)
- class size standards (teacher-student ratios)
- student progress (age versus achievement and grade level standards)
- course-of-study standards (what's essential: acquisition of information versus cognative skills practice)
- units of study/credits and schedules
- learning sites: (formal or informal, learning environment situations, on-campuses or at work or home?)

- library standards and practices
- adoption of instructional materials
- student performance criteria (measures and measurement environments)

The issues of distance learning aren't the distance related parts, but are issues of information technologies. Access to instruction and different instructional delivery methods are only part of the whole area of access to information and knowledge via electronic highways. The model of what "school" is will be affected. The Southwest Educational Development Lab has already touched upon several policy aspects of particular interest to TEA when the Lab produced the "Legislative Barriers to Full Use of New Technology" by Pat Duttweiler.

Wyoming: None, at this time.

Depending upon the circumstances the individual teaching a course for credit would require proper certification and endorsement. Resource people who do not hold credentials could be used.

Question 5: What types of courses are delivered by distance learning in your state? (e.g. basic skills, languages, science, music, etc.)

Alabama: None at present.

Alaska: What is delivered to K-12 users is supplemental to courses, but covers the full spectrum of content and grade levels. Specific courses are offered to university students via audio or video. A broad variety of course offerings is available statewide.

Illinois: All of the above subject areas -- Plato has more than 13,000 programs.

Massachusetts: All materials focus on all curriculum areas and all levels of the K-12 spectrum, plus some in-service training.

Minnesota: German, Art, Spanish, Algebra.

Nevada: N/A

New Mexico: Complete courses in specific content areas are not being delivered by distance learning; however, instructional units in many of the basic curriculum areas are. For example, in math units in computation facts word problems, etc., are taught through distance learning.

New York: All of the curriculum program areas of the Department are addressed via CCC (mathematics, sciences, language arts, special education, occupationals, GED, and programming languages). GIS obviously pertains to guidance information data. Instructional television programming includes all content areas as well. Our teleconferences are identified in the enclosed descriptive materials.

North Carolina: No formal courses at this time; a science course has been proposed and is in planning stage.

Oregon: Many areas of the curriculum are covered at the elementary/secondary level. At the community college level, lower division transfer courses in science, social science, the humanities, computer science, etc., are offered.

Pennsylvania: Statewide emphasis on science, but video is used in all disciplines.

South Carolina: Types of courses offered by distance learning include: For Grades K-12 - 9 Months: 1082 hours of television broadcast, 287 hours of FM radio broadcast. Programming subject areas include: Language Arts, Math, Science, Social Studies, Health, Safety, Vocational Education, Career Education, Music and Art. For Staff Development of Educators - 9 Months: 238 hours of television broadcast, 36 hours of FM radio broadcast. Programming topic areas for television include: Adult Education, Career Education, Arts, Certification Renewal Credit Courses, Classroom Management, College Credit Courses, Computer Education/New Technology, Custodial

Training, Discipline, Early Childhood Education, Education of the Handicapped, Environmental Education, Food Services, Gifted and Talented, Guidance, Health Education, Home Economics, Human Relations Training, Individually Guided Education, ITV and Radio Utilization, Language Arts/Reading, Law-Related Education, Library/Media Center, Math, Music Education, Paraprofessionals, Parent Education, Public Relations, School Bus Safety, School Management, Science Series Utilization, Social Studies, Teacher Benefits, Teaching Techniques, Television Production Techniques, Testing Programs

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Wyoming: In some isolated instances, speaker telepone hook-ups have been used for exposing students to authors, artists, etc.

Question 6: Is the instruction typically a full course or more closely motivational or supplemental?

Alabama: N/A

Alaska: K-12 -- motivational or supplemental with exceptions in the computer area and a few specific video series. Higer education -- mostly complete courses.

Illinois: Typical of a lesson or unit from a course.

Massachusetts: The latter (more closely motivational or supplemental).

Minnesota: Full course.

Nevada: Supplemental.

New Mexico: The type of instruction that is usually delivered by distance learning is supplemental.

New York: CCC materials consist of full courses of study whereas television programming may be series-oriented or enrichment modules. One exemplification is our recent Academy on Computers program, which provides a computer literacy educational experience in a variety of interactive media (printed material is enclosed).

North Carolina: N/A

Oregon: Elementary/secondary are generally supplementary programs. At the community college level, video projects are full term courses with supplemental instruction provided by an instructor for video projects. Audio (telephone) projects are whole courses.

Pennsylvania: The science emphasis will be integral, others are supplemental.

South Carolina: A total of six certificate-renewal credit offerings are scheduled: 62 hours of 238 total hours of television staff development broadcast, or 25%.

Wyoming: Motivational or supplemental in the isolated instances where such is used.

Question 7: Who develops the courses delivered by distance learning?

Alabama: N/A

Alaska: The department through contractors. University units. Purchased from national and Canadian sources.

Illinois: Plato staff.

Massachusetts: Multiple sources. Materials are selected with a combination of advisory input from local school district personnel and state department of education staff.

Minnesota: The teachers.

Nevada: University of Nevada - Reno, Extension Division.

New Mexico: The courses delivered by distance learning in New Mexico are generally developed by post-secondary institutions.

New York: At present, all of the materials which are distributed statewide are commercial products although CCC does matrix its content to New York State Curriculum objectives. Several units within the Department are currently surveying their constituents to identify other regional and statewide "distance learning" activities.

North Carolina: The one proposed would be a consortia project involving the University of North Carolina, the Department of Education, and the North Carolina School of Science and Math.

Oregon: Elementary/secondary courses are generally developed by national consortia or producers. Community college courses are developed by various groups: Lane CC, Coast CC (California), Dallas CC (Texas), etc.

Pennsylvania: Leased or purchased from vendors. Some are produced by PDE.

South Carolina: Our ITV courses are mainly developed by consortia, production agencies or companies and our own Office in cooperation with the S. C. ETV Network. Primary course developers/distributors include:

a. Instructional Television, grades K-12: Agency for Instructional Television, Great Plains National Library, Western Instructional Television, TV Ontario, Encyclopedia Britannica.
b. Staff Development of Educators: Maryland Department of Education, Great Plains National Library, South Carolina Department of Education.

Wyoming: Not applicable.

Question 8: Does distance learning affect the process of state department accreditation?

Alabama: N/A

Alaska: Not at present.

Illinois: No.

Massachusetts: No.

Minnesota: No.

Nevada: No.

New Mexico: Distance learning fails under the regulations governing the accreditation process; it is therefore not affected.

New York: At present, there is no basis upon which this question may be answered.

North Carolina: N/A

Oregon: No.

Pennsylvania: No.

South Carolina: State Department accreditation is affected indirectly by distance learning by enhanced teacher certification and improved school efficiency, operations resulting from use of applicable staff development programming by school administrators and teachers.

Wyoming: Not at this time.

Question 9: If school districts use audio, video, or computer telecommunications for administrative purposes, how are they used?

Alabama: Computers are used by office personnel; attendance record clerks, custodians of funds, etc. Video and audio communication are used interactively in one school district - Gadsden City Schools.

Alaska: Audio - for meetings of a great variety of types. Computers - statewide EMS system for district offices, the department, and other agencies. Used for rapid administrative communications.

Illinois: N/A

Massachusetts: Virtually more computers are used locally for administrative purposes. Electronic transmission of administrative data to and from school districts now under discussion.

Minnesota: Various agencies provide this service to districts, particularly in the Twin City area through TIES or METRO II, who are computer consortiums providing both administrative services and instructional programming.

Nevada: Special Net links all but two districts in the state to the department allowing the use of electronic mail system.

New Mexico: The school districts that have used forms of distance learning usually do so for staff development purposes.

New York: The most notable example of using telecommunications systems for administrative programs pertains to our 13 BOCES New York State School Computer Services System (NYSSCSS) Regional Computer Centers. The services provided by these electronically networked centers are as follows:

- Census/Student Information
- Student Attendance
- Grade Reporting
- Scheduling
- Test Scoring (NRT and CRT)
- Student Achievement Historical Information
- Instructional Management
- Guidance Information
- Curriculum Banks
- Payroll
- Personnel
- Finance/Accounting
- State Reporting

For further information on this project as well as our Comprehensive Instructional Management System (CIMS), a CMI remote-accessed network, contact: Dr. Michael Radlick, Coordinator, Elementary and Secondary School Data Processing Services, at (518) 473-9106.

North Carolina: Statewide data collection networking system under study.

Oregon: Occasional teleconferences, management information (OTIS), electronic mail, information retrieval (Dialog, BRS), data searching (migrant, career profiles).

Pennsylvania: Not at this time.

South Carolina: We have indications that some districts are using computer networking for administrative purposes. Some networking use of computers for instruction may be present.

Wyoming: The State Department of Education is in the process of developing a state EDNET operation for use in routine correspondence in the future.

Question 10: How is the State Department of Eduction planning for the impact of distance learning in the future?

Alabama: The Division of Instructional Services has specifically divided media in the areas of microcomputers, ETV, and Library Media Skills. We are all striving to intertwine a comprehensive overall "Skill Media Approach" to future distance learning projects in the State of Alabama.

Alaska: An ongoing planning and development effort parallels the installation of major systems.

Illinois: Coordinating closely with Plato staff for experimental and prototype projects.

Massachusetts: 1) Networking of administrative data electronically; 2) continuing ITV service; 3) creative user networks for instructional computer software; 4) putting curriculum resource banks as computer data bases.

Minnesota: A telecommunications committee within the department is writing a position paper which may or may not be accepted by the Commissioner and the State Board. The paper urges pilot projects, interconnection of cable channels, etc.

Nevada: Planning is limited at this time. The University system has the greater capability technologically.

New Mexico: Some staff members at our state department of education are involved in task forces and committees studying the expanded use of distance learning in the state.

New York: The Department has undertaken a number of initiatives to devise a long-range strategic plan for the implementation of "distance learning" in the future. Central to this effort is our NYSNET project. In early 1982, the Center for Learning Technologies investigated the possibility of developing a comprehensive computer-assisted communications system. A Request for Information was first used to approximately 80 major vendors to solicit information on equipment, services and software currently available or in development. Twenty vendors attended a conference in Spring, 1983 and 27 submitted responses. This information will be used as a basis for our future plans.

In addition, the Office of Cultural Education, Higher Education, and Vocational Rehabilitation are devising surveys to identify current and potential telecommunications capacities and applications.

North Carolina: Several projects in planning stages.

Oregon: The Oregon Department of Education has designated "technology" as one of eight priority areas and has activated a statewide taskforce to draft recommendations for its use and development in education.

Pennsylvania: Encouraging the use of teleconferences, provide access to electronic databases and developing interactive electronic networks.

South Carolina: Our planning includes:
1) Operation of an advisory system of educators who advise us on instructional needs to be addressed by distance learning technology resources.
2) Participation in national (AIT) and Regional (SECA) television consortia to identify future resources, needs, applications of technology.
3) Development of a state plan for computer education.

Wyoming: A State Department of Education task force is being formed which will address this question among others.

Capsule Summary

1. Resources or assistance provided by the state department of education:

By and large, state departments of education are taking a major leadership role in the planning, implementation, and funding of distance learning projects. Where states provide no direct funding, they still may serve as consultants, brokers, or organizers.

2. Funding sources for distance learning projects:

States generally do not use school financing formula funding for distance education, relying instead on separate services funding or, in some cases, on federal funding.

3. School districts using telephone, video, or computer telecommunications:

Hundreds, perhaps thousands, of school districts are using some form of telecommunications for distance learning, but most state departments of education are not yet systematically collecting data in these areas.

4. Teacher training and teacher certification:

Few states have teacher training for distance learning; nor has teacher certification been affected. Some states have, however, begun to surface and examine the topic.

5. Types of courses delivered by distance learning:

The range of courses is broad, covering the full spectrum of content and grade levels.

6. Full or partial courses delivered by distance learning:

Typically, courses delivered by distance learning are motivational or supplemental (adjunct) in nature rather than full courses (mainline instruction).

7. Developers of distance learning courses:

A variety of sources (university personnel, consortia, commercial producers) develop distance learning course material; few states indicate that classroom teachers participate in the development process.

8. State department accreditation:

Distance learning has had no direct impact on state department accreditation.

9. Administrative uses of audio, video, or computer telecommunications:

Virtually all respondents noted that school districts use computers extensively for administrative, management, and record-keeping purposes with some use of computer networking and audio teleconferencing.

10. State department of education planning for the impact of distance learning:

Planning appears to be in the committee or task force stage, with only one state department of education indicating a long-range strategic plan for the implementation of distance learning in the future.

Implications

The responses of the fourteen states involved in distance learning indicate a number of implications for the implementation of distance learning technologies on a larger scale than now exists. The telecommunications system developed by Alaska is, because of demographic reasons and economic considerations, by far the most advanced, extensive, and fully coordinated system within a single state. Because of the uniqueness of the educational climate, Alaska may or may not represent a "model" of a statewide distance learning system. But certainly in the areas of state department initiative, leadership, and specific funding set-aside for alternative instructional delivery systems Alaska demonstrates two key ingredients to successful implementation of distance learning delivery systems. (1) The importance of the state department of education taking a major leadership role in the planning, implementation, and maintenance of distance learning systems cannot be underestimated, particularly since distance learning technologies radically affect traditional methods of assessing formula funding, teacher certification, and state accreditation. (2) Similarly, state department leadership in addressing the state funding sources for distance learning systems is critical: standard attendance criteria and perhaps even school district tax bases are radically affected by non-traditional instructional delivery systems.

The planning, implementation, and long-term maintenance of distance learning will affect state educational policy-making in major ways. Even though states which currently employ some form of distance learning indicated that teacher certification, state accreditation, and strategic long-range planning have not yet been impacted by current technologies, it is clear that educational policymakers will be forced to re-conceptualize issues such as

training, certification, and accreditation as the role and competencies of the teacher, the site, and the mode of instructional delivery are modified. The issues which will be raised by distance learning tomorrow are similar to those being raised by computer technology today. The adjunctive rather than mainline nature of distance learning repeats the pattern of computer-assisted instruction in the early implementation stages. Judged originally to be "extra" or too expensive, computer technology today is presenting state departments of education across the country with broad policy and curricular issues. The same situation could well occur with distance technologies tomorrow unless strategic planning takes place today.

It is also important to note the relative lack of teacher involvement in the courseware development process. Distance learning systems -- because of the very fact of the remoteness of the learner from the teacher -- may mandate that the "high tech" of the technology be balanced with the "high touch" of the teacher. Materials and processes may need to be crafted in some measure by the experienced, expert classroom teacher.

Distance learning in early 1984 appears to offer countless possibilities. The leadership and planning skills of state departments of education can assure that distance learning in 2004 does not offer countless problems.

APPENDIX A

Instrument

Survey on Uses of Distance Learning in the U.S.

Distance learning or teleconferencing provides the opportunity to learn independently and at a distance from the teacher or the school. There are three basic types of telecommunication media for distance learning: audio or "voice only" by telephone, "voice and audio" by video, and computer. The three types of distance learning have the following characteristics in common: they provide two-way communication between two or more groups, or three or more individuals, in separate locations using interactive telecommunication.

In an attempt to document the extent of distance learning programs and projects throughout the U.S., we would like you to fill out the following questionnaire for your state and mail it back to us in the self-addressed stamped envelope provided for you. We appreciate your cooperation in this project very much.

1. Does your State Department of Education provide resources or assistance to distance learning projects? If so, in what ways?

2. Does the state through its school financing formula provide money for distance education projects? If so, how much?

3. How many school districts have current distance learning projects using telephone, video, or computer telecommunications? The names of the districts are:

4. What special training is required of teachers who teach via distance learning?

   Is teacher certification affected by distance learning?

5. What types of courses are delivered by distance learning in your state? (e.g. basic skills, languages, science, music, etc.)

6. Is the instruction typically a full course or more closely motivational or supplemental?

7. Who develops the courses delivered by distance learning?

8. Does distance learning affect the process of state department accreditation?

9. If school districts use audio, video, or computer telecommunications for administrative purposes, how are they used?

10. How is the State Department of Education planning for the impact of distance learning in the future?

Questionnaire answered by:

NAME:

TITLE:

STATE DEPARTMENT:

PHONE:

If you have any questions, please contact Diane E. Downing, Southwest Educational Development Laboratory/Regional Exchange, (512) 476-6861, ext. 220.

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APPENDIX B

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